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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,911	09/12/2003	Mark S. Lanus	IS01190MCG	1793

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MOTOROLA, INC.
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EXAMINER

CRAIG, DWIN M

ART UNIT	PAPER NUMBER
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2123

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/661,911	LANUS ET AL.	
	Examiner	Art Unit	
	Dwin M. Craig	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 12, 13, 15-20, 22, 23, 25, 26, 28-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 13, 15-20, 22, 23, 25, 26, 28-30 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-7, 12, 13, 15-20, 22, 23, 25, 26, 28, 29, 30 and 32 have been presented for reconsideration in view of Applicants' amended claim language and arguments.

Response to Arguments

2. Regarding the 35 U.S.C. 101 rejections of claims 1-32 and claim 9, the Examiner withdraws the previously applied 35 U.S.C. 101 rejections to the claims because Applicants' amendments have rendered the previously applied rejections moot.

2.1 Regarding the 35 U.S.C. 112 2nd paragraph rejections of claims 1-32, the Examiner withdraws the previously applied 35 U.S.C. 112 2nd paragraph rejections to the claims because Applicants' amendments have rendered the previously applied rejections moot.

2.2 Regarding Applicants' arguments regarding the 35 U.S.C. 102 (b) rejections of claims 1, 12, 15, 22, 25, 28, 29 and 32 the Examiner respectfully traverses Applicants' arguments. More specifically and referring to the arguments disclosed on page 8 of the 12/14/2006 responses Applicants' have argued that, "*The real-time RTKernel-32 extends RTTargets-32's Win32 support with multithread functions to create and manage threads...So it is clear that the system taught by Peterson uses the multithreaded aspect of Windows, and does NOT use a single thread as recited in Applicant's amended independent claims...*" Applicant further argues, "*The Examiner alleges that Peterson teaches the use of a single thread, (page 65). Applicants respectfully disagree. Peterson discusses prior art options that include running Windows NT under another realtime system, where NT is run as a single task (page 65 per Examiner's reference)...*"

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The Examiner respectfully points out that support for Win32 Multithreading functions is different from a Real-Time Kernel executing in a single thread. The Real-Time kernel of Peterson, while executing as a single *task* does support multiple threads, *from within the emulated Win-32 environment*, this emulation of the Win32 environment bears no impact upon the fact that the Win32 emulator itself, is running as a single *task* which is functionally the same as a *single thread*. Therefore, because Applicants' claim language is directed towards a Real-time Kernel that is executing as a single thread and that also *emulates* a Win32 environment, *as currently claimed*, Peterson reads on the recited claimed limitations.

Further and in regards to the argument that "*Peterson is teaching away from Applicants recited limitations...*" the MPEP states, Section 2123.05

"Arguments that the alleged anticipatory prior art is nonanalogous art' or teaches away from the invention' or is not recognized as solving the problem solved by the claimed invention, [are] not germane' to a rejection under section 102." *Twin Disc, Inc. v. United States*, 231 USPQ 417, 424 (Cl. Ct. 1986) (quoting *In re Self*, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)). See also *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1068, 68 USPQ2d 1481, 1488 (Fed. Cir. 2003) (The question of whether a reference is analogous art is not relevant to whether that reference anticipates. A reference may be directed to an entirely different problem than the one addressed by the inventor, or may be from an entirely different field of endeavor than that of the claimed invention, yet the reference is still anticipatory if it explicitly or inherently discloses every limitation recited in the claims.).

A reference is no less anticipatory if, after disclosing the invention, the reference then disparages it. The question whether a reference "teaches away" from the invention is inapplicable to an anticipation analysis. *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998) (The prior art was held to anticipate the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed."). >See *Upsher-Smith Labs. v. PamLab, LLC*, 412 F.3d 1319, 1323, 75 USPQ2d 1213, 1215 (Fed. Cir. 2005)(claimed composition that expressly excluded an ingredient held anticipated by reference composition that optionally included that same ingredient);< see also *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1349, 51 USPQ2d 1943, 1948 (Fed. Cir. 1999) (Claimed composition was anticipated by prior art reference that inherently met claim limitation of "sufficient aeration" even though reference taught away from air entrapment or purposeful aeration.).

Regarding Applicants' arguments concerning the 35 U.S.C. 103(a) rejections of claims 3 and 17, on page 9 of the 12/14/2006 responses, Applicants' failed to seasonably challenge the Examiner's assertions of well-known subject matter in the previous Office action(pursuant to

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the requirements set forth under MPEP §2144.03. A “seasonable challenge” is an explicit demand for evidence set forth by Applicant in the next response. Accordingly, the claim limitations the Examiner considered as “well known” in the first Office action through the use of Official Notice, i.e. the use of, *inter-process communications*, are now established as admitted prior art of record for the course of the prosecution. See *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). The provisions of using, *inter-process communications*, does not constitute a patentable distinction.

Claim Interpretation

3. Applicants’ claims have been given the broadest reasonable interpretation. The recitation *a computer network* has not been given patentable weight because the recitation occurs in the preamble of claims 22, 25, 28 & 32. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

It is further noted that the reference relied upon by the Examiner, specifically, “Win32: A suitable Standard for Real-Time Embedded Systems?” by Peter Peterson discloses a Real-Time kernel that operates with Windows NT, it is well known in the computer art that Windows NT is a *network* operating system and was design to be used with computer servers and workstations that are all part of a computer network.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 2, 4-7, 12, 13, 15, 16, 18-20, 22, 23, 25, 26, 28, 29, 30 and 32 are rejected under 35 USC § 102(b) as being anticipated by “Win32: A suitable Standard for Real-Time Embedded Systems?” by Peter Peterson hereafter referred to as *Peterson*.

5.1 As regards independent claim 1, *Peterson* discloses, *a method, comprising: providing a real-time kernel; (page 64 Figure 1 RTKernel-32 and text) loading an executable into memory, wherein the memory is allocated for the executable, and wherein the executable is programmed to execute in a WIN32 execution environment; (top of page 64, “...create a WIN32 compatible environment...”)* *the real-time kernel permitting execution of the executable in an emulated WIN32 execution environment, (Figure 2 on page 66 and in the section on page 66 entitled “SCALABILITY”...different parts of its Win32 emulation library are modules linked...)* *wherein the emulated WIN32 execution environment utilizes an emulated subset of WIN32 execution environment services; and the executable operating real-time in the emulated WIN32 execution environment (pages 64-68 and more specifically Figure 2 on page 66) and Peterson discloses, a single threaded real-time kernel (page 65 “...The idea is to run NT as a single task...”).*

4.2 As regards dependent claim 2 *Peterson* discloses that the *Real-time kernel* supports *scalability* (page 65) and it is noted that Windows NT is an operating system that supports multiple processors, i.e. scalability (see page 68 and the term *multi-processor*).

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4.3 As regards dependent claim 4 *Peterson* discloses, *interrupt handling* (page 66 "...support for interrupt handling...").

4.4 As regards dependent claim 5, *Peterson* discloses, *an exception handler* (page 65 in the section entitled "EXAMPLE:RTTARGET-32 AND RTKERNEL-32 FROM ON TIME" "...This includes the latest C++ language features such as exception handling...").

4.5 As regards dependent claim 6, *Peterson* discloses, *a memory manager* (page 66 "...A strong feature of RTTarget-32 is its efficient use of the memory management...").

4.6 As regards dependent claim 7, *Peterson* discloses, *x86-based architecture and hardware* (page 64 "...a range of 32-bit Intel i80386...").

4.7 As regards independent claim 12, *Peterson* discloses, *an apparatus, comprising: a processor* (page 64 "...a range of 32-bit Intel i80386..."); *a memory* (page 66 "...Hardware breakpoints can be set in ROM or RAM and do not change the programs run-time behavior..."); *and a real-time kernel having a subset of WIN32 execution environment services stored in the memory* (page 64 Figure 1 RTKernel-32 and text), *wherein the real-time kernel permits execution of an executable in an emulated WIN32 execution environment on the processor* (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY"...different parts of its Win32 emulation library are modules linked...), *wherein the executable is programmed to execute in a WIN32 execution environment, and wherein the executable operates real-time in the emulated WIN32 execution environment* (pages 64-68 and more specifically Figure 2 on page 66) and *Peterson* discloses, *a single threaded real-time kernel* (page 65 "...The idea is to run NT as a single task...").

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4.8 As regards dependent claim 13, *Peterson* discloses, *x86-based architecture and hardware* (page 64 "...a range of 32-bit Intel i80386...").

4.9 As regards independent claim 15, *Peterson* discloses, *a method, comprising: providing a real-time kernel; loading an executable into memory* (page 64 Figure 1 RTKernel-32 and text), *wherein the memory is allocated for the executable, and wherein the executable is programmed to execute in a WIN32 execution environment; the real-time kernel creating an emulated WIN32 execution environment which permits execution of the executable in an emulated WIN32 execution environment* (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY"...different parts of its Win32 emulation library are modules linked...), *wherein the emulated WIN32 execution environment utilizes an emulated subset of WIN32 execution environment services; and the executable operating real-time in the emulated WIN32 execution environment* (pages 64-68 and more specifically Figure 2 on page 66) and *Peterson* discloses, *a single threaded real-time kernel* (page 65 "...The idea is to run NT as a single task...").

4.10 As regards dependent claim 16, *Peterson* discloses that the *Real-time kernel* supports *scalability* (page 65) and it is noted that Windows NT is an operating system that supports multiple processors, i.e. scalability (see page 68 and the term *multi-processor*).

4.11 As regards dependent claim 18, *Peterson* discloses, *interrupt handling* (page 66 "...support for interrupt handling...").

4.12 As regards dependent claim 19, *Peterson* discloses, *an exception handler* (page 65 in the section entitled "EXAMPLE:RTTARGET-32 AND RTKERNEL-32 FROM ON TIME" "...This includes the latest C++ language features such as exception handling...").

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4.13 As regards dependent claim 20, *Peterson* discloses, *a memory manager* (page 66 "...A strong feature of RTTarget-32 is its efficient use of the memory management...").

4.14 As regards independent claim 22, *Peterson* discloses, *a computer network* (Windows NT is a network operating system, see page 67 "...Of course RTTarget-32 does not attempt to be a Windows NT clone. Only a subset of NT's API..."), *comprising: a plurality of processors; (Real-time kernel supports scalability* (page 65) and it is noted that Windows NT is an operating system that supports multiple processors, i.e. scalability (see page 68 and the term *multi-processor*) *a memory* (page 68, "...A minimal RTTARGET-32 program can run in about 12K of ROM and 4K of RAM..."); *and a real-time kernel having a subset of WIN32 execution environment services stored in the memory* (see page 67 "...Of course RTTarget-32 does not attempt to be a Windows NT clone. Only a subset of NT's API..."), *wherein the real-time kernel permits execution of an executable in an emulated WIN32 execution environment on at least one of the plurality of processors*, (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY" ...different parts of its Win32 emulation library are modules linked...) *wherein the executable is programmed to execute in a WIN32 execution environment, and wherein the executable operates real-time in the emulated WIN32 execution environment* (pages 65 and 66) and *Peterson* discloses, *a single threaded real-time kernel* (page 65 "...The idea is to run NT as a single task...").

4.15 As regards dependent claim 23, *Peterson* discloses, *x86-based architecture and hardware* (page 64 "...a range of 32-bit Intel i80386...").

4.16 As regards independent claim 25, *Peterson* discloses, *a computer network*, (Windows NT is a network operating system, see page 67 "...Of course RTTarget-32 does not attempt to be a

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Windows NT clone. Only a subset of NT's API..." comprising: *a plurality of processors; (Real-time kernel supports scalability* (page 65) and it is noted that Windows NT is an operating system that supports multiple processors, i.e. scalability (see page 68 and the term *multi-processor*) *a plurality of memories corresponding to each of the plurality of processors; (page 68, "...A minimal RTTARGET-32 program can run in about 12K of ROM and 4K of RAM..." and a real-time kernel having a subset of WIN32 execution environment services stored in each of the plurality of memories,* (see page 67 "...Of course RTTarget-32 does not attempt to be a Windows NT clone. Only a subset of NT's API...") *wherein the real-time kernel permits execution of an executable in an emulated WIN32 execution environment on one of the plurality of processors, wherein the executable is programmed to execute in a WIN32 execution environment, and wherein the executable operates real-time in the emulated WIN32 execution environment* (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY...different parts of its Win32 emulation library are modules linked..." and pages 65 & 66) and *Peterson discloses, a single threaded real-time kernel* (page 65 "...The idea is to run NT as a single task...").

4.17 As regards dependent claim 26, *Peterson discloses, x86-based architecture and hardware* (page 64 "...a range of 32-bit Intel i80386...").

4.18 As regards independent claim 28, *Peterson discloses, a method of operating a computer network,* (Windows NT is a network operating system, see page 67 "...Of course RTTarget-32 does not attempt to be a Windows NT clone. Only a subset of NT's API...") *comprising: providing a real-time kernel; loading an executable into memory, wherein the memory is allocated for the executable, and wherein the executable is programmed to execute in a WIN32*

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execution environment; (Figure 2 on page 66 and all of the text on page 65 & 66) the real-time kernel permitting execution of the executable in an emulated WIN32 execution environment, (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY...different parts of its Win32 emulation library are modules linked..." and pages 65 & 66) wherein the emulated WIN32 execution environment utilizes an emulated subset of WIN32 execution environment services; and the executable operating real-time in the emulated WIN32 execution environment (text on pages 64-65) and Peterson discloses, a single threaded real-time kernel (page 65 "...The idea is to run NT as a single task...").

4.19 As regards independent claim 29, Peterson discloses, a computer-readable medium containing computer instructions for instructing a processor to perform a method of operating an apparatus, the instructions comprising: providing a real-time kernel; (page 64 Figure 1 RTKernel-32 and text) loading an executable into memory, wherein the memory is allocated for the executable, and wherein the executable is programmed to execute in a WIN32 execution environment; (pages 64-65) the real-time kernel permitting execution of the executable in an emulated WIN32 execution environment, wherein the emulated WIN32 execution environment utilizes an emulated subset of WIN32 execution environment services; and the executable operating real-time in the emulated WIN32 execution environment (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY...different parts of its Win32 emulation library are modules linked..." and pages 65 & 66) and Peterson discloses, a single threaded real-time kernel (page 65 "...The idea is to run NT as a single task...").

4.20 As regards dependent claim 30, Peterson discloses, *x86-based architecture and hardware* (page 64 "...a range of 32-bit Intel i80386...").

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4.21 As regards independent claim 32, *Peterson* discloses, *a computer-readable medium containing computer instructions for instructing a processor to perform a method of operating a computer network*, (Windows NT is a network operating system, see page 67 "...Of course RTTarget-32 does not attempt to be a Windows NT clone. Only a subset of NT's API...") *the instructions comprising: providing a real-time kernel; the real-time kernel initializing the computer network; (page 64 Figure 1 RTKernel-32 and text) loading an executable into memory, wherein the memory is allocated for the executable, and wherein the executable is programmed to execute in a WIN32 execution environment; (pages 64-65) the real-time kernel permitting execution of the executable in an emulated WIN32 execution environment, wherein the emulated WIN32 execution environment utilizes an emulated subset of WIN32 execution environment services; and the executable operating real-time in the emulated WIN32 execution environment* (Figure 2 on page 66 and in the section on page 66 entitled "SCALABILITY...different parts of its Win32 emulation library are modules linked..." and pages 65 & 66) and *Peterson* discloses, *a single threaded real-time kernel* (page 65 "...The idea is to run NT as a single task...").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5 Claims 3 and 17 are rejected under 35 USC § 103(a) as being unpatentable over “Win32: A suitable Standard for Real-Time Embedded Systems?” by Peter Peterson referred to as *Peterson*.

5.1 As regards dependent claims 3 and 17, while *Peterson* substantially teaches the limitations disclosed in claims 1, 2, 4-16 and 18-32, *see rejection above*, however, *Peterson* does not expressly disclose the limitation of having *inter-process communications*.

Official notice is taken that *inter-process communications* was well known at the time of the invention in the analogous art of US Patent 6,233,602 *Van Venroy* entitled “Dynamically

Allocating Server Processes to Client Processes” see Col. 7 lines 13-18 “...All interprocess communication mechanisms from every process to every node to any other process...”

At the time the invention was made, it would have been obvious to a person of ordinary skill to have realized that Windows NT, which is a networking operating systems would support inter-process communications as a mechanism to facilitate communications between different threads/processes running on different computers in a network of computers.

The suggestion for doing so would have been that the support for inter-process communications is required for any network operating system to effectively communicate with different computer applications over a network, in the case of a real-time kernel *Van Venroy* teaches the use of inter-process communications in a real-time environment (Col. 7 lines 24-25 “...realized by the OS-9/CD-RTOSsystem cited earlier...” *et seq.*).

Therefore, it would have been obvious to modify *Peterson* to obtain the invention as specified in claims 3 and 17.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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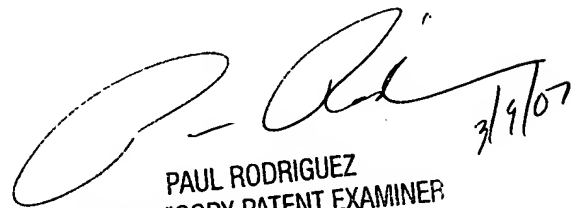
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M. Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul L. Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dwin McTaggart Craig


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3/9/07